

## ABSTRACT

A communication system using PPP in which a plurality of layer 3 protocols are defined has a problem. PDSN cannot judge which of layer 3 protocols is equipped in a terminal, and NCP phase processes corresponding to all layer 3 protocols of the system are executed. This increases the number of PPP packets transmitted/received between the terminal and PDSN, which prolongs a connection time. In the invention, a new procedure of the NCP phase process is established in a communication system, by which the terminal firstly notifies a layer 3 protocol to PDSN and thereafter the NCP phase process is executed. PDSN waits for a notice of the layer 3 protocol from the terminal, selects the corresponding layer 3 protocol from the layer 3 protocols according to the notice, and executes the NCP phase.